

NEMOPHILA

Meeting and Field Guide

CALIFORNIA BOTANICAL SOCIETY

JANUARY 8, 1920

NUMBER 6

The purpose of the Society is to promote the botanical study and investigation of California plants, to diffuse knowledge concerning them, and by lectures, field-trips, exhibitions and publications to deepen interest in the native flora amongst the people of California.

FIELD TRIPS AND MEETINGS.

Saturday, Jan. 10, 7:55 p. m. Room 113, Agricultural Hall, University of California, Berkeley. Lecture by Prof. A. H. Cockayne, Government Botanist of New Zealand, on the Vegetation of New Zealand; illustrated by lantern slides.

Sunday, Jan. 18. Redwood Peak. Mushrooms and fungi on the peak and in pine forests along patrol trails on ridge. Meet at Hopkins and Lincoln Avenues, Fruitvale (Dimond car), 9:30 a. m. Bring lunch. Coffee. Leader, Mr. A. L. Walker.

Saturday, Jan. 24, 7:55 p. m., in Room 113, Agricultural Hall, University of California, Berkeley. Lecture on Plant Breeding and Wild Plants by Dr. P. J. S. Cramer, Director of the Division of Plant Breeding, Department of Agriculture, Buitenzorg, Dutch East Indies. Illustrated by lantern slides.

Sunday, Feb. 1. Trip to the region of the Guadalupe Mines, Santa Clara Co., for the study of mushrooms and fungi. Methods of hunting and collecting truffles will be shown and also the manner of determining false truffles. A motor bus will be chartered for the round trip. Members and visitors desiring to go must remit \$1.75 to the Secretary, Miss Ehlers, 2613 Durant Ave., Berkeley (Phone Berk. 3699), before Tuesday, January 20. Twenty must sign or the trip cannot be arranged. Meet at corner 13th St. and Broadway, Oakland, 8 a. m. Returning, leave mines at 4:30, arriving in Oakland about 7:00 p. m. Bring lunch. Hot coffee. Leader, Mr. Harold E. Parks.

Sunday, Feb. 8. Garfield Cañon, Oakland Hills. Early-flowering plants: Trilliums, Ribes, Asarum, etc. Meet at end of Park Boulevard car line, 10 a. m. Bring lunch. Coffee. Leader, Dr. E. F. Card.

Saturday, Feb. 14, 7:55 p. m. Room 113, Agriculture Hall, University of California, Berkeley. Regular meeting: The Redwood Belt and Its Conservation. Meeting under the auspices of the Committee on Conservation: Mr. Geo. B. Furniss (Chairman), Mr. C. W. Carruth, Dr. E. F. Card. The meeting is scheduled to discuss various movements for the preservation of virgin bodies of Redwood timber for public use; lantern slide illustrations.

Sunday, Feb. 22. Trip to Wildcat Cañon. Search for Ribes aureum, which is reported from this region, and other plants. Meet at University and Shattuck Aves., Berkeley, 9 a. m. Bring lunch. Leader, Mr. Ivan M. Johnston.

Sunday, Feb. 29. Sky-line Trail, Oakland Hills (contour trail between Thorn Hill and Snake Notches). Early-flowering Aristolochia, Ribes, and other plants. Meet at end of Park Boulevard car line. Dimond Cañon, 9:30 a. m. Bring lunch. Hot coffee. Leader, Miss Helen Bergfried.

Saturday, Mar. 20, 7:00 a. m. Annual dinner, Faculty Club, Berkeley. The dinner this year will be in honor of Mrs. J. B. Smith, founder of the Department of Botany in Mills College. Chairman of the Committee of Arrangements, Mrs. D. W. de Veer, Oakland Public Museum. Fuller details will appear in the next leaflet.

NEW GROWTH ON A SANTA CRUZ CLEARING.

I bought a few acres of cut-over land in the hills between Soquel and Aptos, 700 ft. elevation. Some ground which was covered with Manzanita and Chamise I cleared. There was not another plant except Yerba Santa in sight. The first season—being this last summer—the following plants came up in a space of 75 ft. square. Where the seed could have come from I will not guess. The ground was never

cleared before, nor any other near by. Here is the list: *Hazardia squarrosa*; *Thelypodium lasiophyllum*; *Lupinus hirsutissimus*; *Solanum umbelliferum*; *Verbena prostrata*; *Stachys Californica*; *Zygadenus Fremontii*; *Scutellaria tuberosa*; *Pterostegia drymarioides*; *Gnaphalium purpureum*; *Oenothera micrantha*; *Antirrhinum strictum*; *Gilia achillaeifolia*; *Orobanche fasciculata*; and one or two more I can't recall. At this elevation at another place I found *Euphorbia serpyllifolia*, supposed to be confined to creek beds and low grounds. Soil is slightly sandy. The nearest water to the surface has been found at 80 ft. I think the above is a pretty good record for a new piece of ground.—C. A. Reed, Nov. 16, 1919.

Migratory or dormant seeds.—The above letter from our correspondent is a renewal of an old query. The prompt appearance of such plants in clearings and on "burns" has always been baffling to botanists. Undoubtedly in many cases the seeds are blown in from neighboring areas, or sometimes they are brought in by birds or by water. In some instances, too, plants occur in a dwarfed inconspicuous state in the chaparral and are not noticed until the changed conditions transform them; then with fattened surroundings they are excessively prominent. Yet again seeds lie dormant in the soil for many years, and germinate readily only with a radical change of conditions.—W. L. Jepson.

Effects of brush fires.—Generally speaking where a fire has passed over a section all vegetable growth is stimulated, often wonderfully. The spread of many species from seed is greatly increased, some species appear which were rare or unknown before, and the size and beauty of all flowers is increased sometimes 300 to 500 per cent. Always for the finest bulbous plants and especially lilies seek the path of a brush or forest fire of one to two years previous. To just what action of the fire these results are due I do not know. Perhaps to several things. Of course there is a deposit of potash which we know is beneficial, yet spreading hardwood ashes over well tilled soil does not have the stimulating effect that burning brush over it would have. In brushy or wooded lands fungous growths are undoubtedly killed and I have long noted that lily bulbs which were much rotted before a fire would be perfectly bright and fresh afterwards. Opening out to the light by burning brush or small trees has its part in the result and soils are always loosened by a fire. Sometimes this loosening amounts to a fairly good surface cultivation.—Carl Purdy, Intern. Gard. Club, 3:224.

SAVE THE REDWOODS LEAGUE.

This league has been organized to secure for preservation in their natural state tracts of virgin Redwood timber in the main portion of the great northern Redwood Belt. It is planned to preserve a portion of the forest bordering the new state highway into Eureka and also to secure a large unbroken body of the finest Redwood stand for dedication as a great National Redwood Park. Any one who is interested in joining the league or promoting its interests should address Mr. Robert G. Sproul, Secretary, 430 Library, University of California, Berkeley, Cal. The President of the League is Franklin K. Lane, Secretary of the Interior.

COMMITTEE ON ECONOMIC PLANTS.

At a recent meeting of the Committee on Economic Plants plans were made for continuing the work reported on at the last annual meeting along four different lines, each under the direction of a member of the committee. The proposed lines of activity are (1) utilization and improvement by cultivation and hybridization of native food plants and fruits (Dr. W. C. Blasdale), (2) study of edible fungi (Professor W. T. Horne), (3) native and introduced medicinal plants (Mr. A. L. Walker), (4) ornamental plants (Professor H. E. McMinn). The committee solicits the co-operation and assistance of any members of the society who are willing to collect information or to undertake experimental work.

WHITE PINE BLISTER RUST.

Officers of the Forest Service were disturbed last spring by the discovery at Monrovia, California, of the uredinial and telial stages of a rust on *Ribes tenuiflorum*, which could not be distinguished from the corresponding stages of white pine blister rust (*Cronartium ribicola*), a fungus which threatens to cause incalculable damage to the white pine forests of New England and the Middle West and has been shown by cultural experiments to be capable of developing on five-needled species of pines, including *Pinus Lambertiana* and *P. monticola*. Extended explorations by scouting parties during the summer showed that the rust was widely distributed along the eastern slopes of the Sierra Nevada on several species of *Ribes*, but also showed that the aecial stage of *Cronartium occidentale* was to be found over somewhat the same range on *Pinus monophylla*. As the rust last named produces uredinial and telial stages on species of *Ribes*, which cannot be distinguished from those of *Cronartium ribicola*, it seems probable that the aecia in question belong to *Cronartium occidentale*, which affects pines of the piñon group only, and is of relatively slight importance economically. It is to be hoped that the preventive measures now being instituted will protect our sugar pine forests permanently from pine rust.